

CLAIM AMENDMENTS

1-20. (canceled)

21. (previously presented): A glycosylated or nonglycosylated composition of the formula

$$\beta^2 \approx \alpha\text{-(linker)}_m\text{-}\beta^1 \quad (1); \text{ or}$$

$$\beta^1\text{-(linker)}_m\text{-}\alpha \approx \beta^2 \quad (2)$$

wherein each of β^1 and β^2 has the amino acid sequence of the β subunit of a vertebrate glycoprotein hormone, or a variant thereof;

“ α ” has the amino acid sequence of the α subunit of a vertebrate glycoprotein hormone or a variant thereof;

“linker” is a linker moiety; and

“ \approx ” is a noncovalent link between α and β^2 ;

m is 0 or 1;

with the proviso that if β^1 is CG then β^2 is not FSH.

22. (previously presented): The composition of claim 21, wherein β^1 and β^2 correspond to different native β subunits.

23. (previously presented): The composition of claim 21, wherein β^1 and β^2 exhibit different biological half-lives.

24. (previously presented): The composition of claim 21, wherein one of β^1 and β^2 confers agonist activity and the other confers antagonist activity.

25. (previously presented): The composition of claim 21, wherein both β^1 and β^2 confer FSH agonist activity; or

wherein both β^1 and β^2 confer CG agonist activity; or

wherein both β^1 and β^2 confer LH antagonist activity; or

wherein one of β^1 and β^2 confers FSH agonist activity and the other confers LH antagonist activity; or

wherein one of β^1 and β^2 confers FSH agonist activity and the other confers CG agonist activity; or

wherein one of β^1 and β^2 confers LH antagonist activity or lowered LH agonist activity and the other confers CG agonist activity.

26. (previously presented): The composition of claim 21, wherein both β^1 and β^2 confer FSH antagonist activity; or

wherein both β^1 and β^2 confer CG antagonist activity; or

wherein both β^1 and β^2 confer LH agonist activity; or

wherein one of β^1 and β^2 confers FSH antagonist activity and the other confers LH agonist activity; or

wherein one of β^1 and β^2 confers FSH antagonist activity and the other confers CG antagonist activity; or

wherein one of β^1 and β^2 confers LH agonist activity and the other confers CG antagonist activity.

27. (previously presented): The composition of claim 21, wherein one of β^1 and β^2 confers FSH agonist activity and the other confers LH antagonist activity; or

wherein both β^1 and β^2 confer FSH agonist activity; or

wherein both β^1 and β^2 confer LH antagonist activity.

28. (previously presented): A pharmaceutical formulation which comprises an effective amount of the composition of claim 21 in admixture with at least one pharmaceutically acceptable excipient.

29-39. (canceled)